

FURMAN'S

Intensive Farming

FURMAN'S FERTILIZING

✽HOW✽HE✽CULTIVATED✽HIS✽LAND✽

PRACTICAL POINTS FOR FARMERS, CONDENSED FROM HIS PUBLISHED
INTERVIEWS, LETTERS, AND SPEECHES, WITH ADDITIONAL
NOTES FROM PRIVATE CONVERSATIONS & PAPERS.

PLAIN TALK FOR FARMERS, THAT WILL AID THEM TO
Make a Bale of Cotton per Acre on Poor Land.

✽COTTON ✽ OATS ✽ PEAS✽

IN MEMORIAM:

SKETCH OF FURMAN'S LIFE, PRESS NOTICES OF HIS DEATH,

EDITED BY HUGH H. COLQUITT,

PUBLISHED AND PRESENTED BY

FURMAN FARM IMPROVEMENT CO.

ATLANTA, GA.

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FURMAN FARM IMPROVEMENT CO. FERTILIZER WORKS,

This Company control the sole right to manufacture and sell

Farish Furman's Formula.

The great Georgia Farmer's Chemical Compost for Cotton, as improved by the late **FARISH C. FURMAN**, President of this Company at the time of his death.

NONE GENUINE UNLESS BRANDED

"FURMAN'S FORMULA."

BUFFALO BONE GUANO,

Or, **"FURMAN'S FORMULA," AMMONIATED.** A Complete Fertilizer for Cotton and Wheat.

GOLDEN GRAIN GUANO,

Or, **"FURMAN'S FORMULA" FOR OATS.**

None genuine unless branded

"FURMAN'S FORMULA."

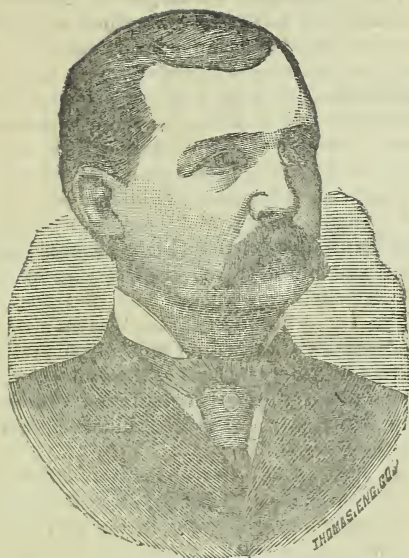
Primus Jones, the great Southwestern Georgia farmer, the first-bale man, says "FURMAN'S FORMULA" will stop rust in cotton—it will stand drought better than any fertilizer.

Agents for Furman's Seed, Duncan's Mammoth Prolific, Zellner's Improved Seed.

For information, address

FURMAN FARM IMPROVEMENT CO.,

40 MARIETTA STREET, ATLANTA, GA.



FARISH C. FURMAN.

A high-souled man dwelt close to Nature's heart,
 And bade her secrets to his ken unclothe,
 Making the arid hillsides 'neath his touch
 To thrill with life and "blossom like the rose;"
 When once the nigdard, ill-tilled fields
 Gave grudging answer from their barren plains,
 Flashing with strength from his electric will,
 They fill the land with fruits and fleece and grains!

M. R. C.

PREFACE.

Mr. Furman's system of fertilizing is based on the idea that different plants require each a fertilizer suited to its particular wants, just as different animals require different food. He believed he had definitely determined and perfected a fertilizer for cotton. He was experimenting with formulæ for oats and corn.

Mr. Furman followed the system so successfully used by George Ville, the great French scientific agriculturist. In France the experiments were made on wheat. Hear what Mr. Furman said: "I had been very much impressed with the idea of the French agriculturist, George Ville, as illustrated by him in his experiments at Vincennes, to-wit, that land is only the vehicle for making any crop. In pursuance of this idea, in order to give its correctness a thorough test, he took sand and burnt it, so as to destroy all foreign matter; then took water and distilled it, so that it should be chemically pure; took next the wheat plant and subjected it to careful analysis—root, stem, leaf and grain—thereby ascertaining its constituent elements; then he took his sand, scattered it on a plank floor, and planted wheat in it; took his distilled water, and dissolved in it every thing that his analysis showed him that his wheat required; watered the wheat with it carefully and regularly, and harvested from it at the rate of exceeding forty bushels of wheat per acre.

"This seemed to my mind a complete demonstration of the truth of his theory as to grain. Cotton being the crop of our section, I determined to make an experiment upon the same line on cotton."

Mr. Furman took the very careful and elaborate analysis of the cotton plant furnished by Prof. H. C. White, chemist for the State of Georgia, and made an experiment, extending through four years, and, in his own language, the result is stated as follows: "Near home upon the scrubby pine lands of Middle Georgia, I myself, by the use of a perfect cotton manure, have in four years raised the production of sixty acres of land from eight bales of cotton to seventy bales of cotton and five hundred bushels of oats, and the increased value of the land alone will more than pay for every dollar's worth of manure used upon it during the period, leaving the crops—the cost of working which under the intensive system was very small—almost clear profit, proving incontestably that the results from scientific agriculture in the Old World are not more certain and satisfactory than with us on this side of the Atlantic, for correct principles are universal in their application and results."

The compost heap, with the addition of chemicals, had been urged by the Department of Agriculture of the State of Georgia for years, and Mr. Furman's farming perfected past formulæ and gave a mighty impetus to the saving of home materials, and to the use of chemicals. He claimed no originality for his system of cultivation, but he followed mainly in the footsteps of another distinguished Georgia farmer, Hon. David Dickson, of Hancock county.

This little book aims to give Mr. Furman's plan of farming in words so plain that any farmer who reads it can do as Mr. Furman did. I have freely used his speeches delivered before the Georgia State Agricultural Society, and at Auburn before the Alabama Agricultural College. I have had the aid of his family in preparing the pamphlet. I have taken extracts from his letters to the *Home and Farm* and from interviews with him published in the *Atlanta Constitution*, *Georgia Truck Farmer*, *Selma Times*, and *Troy (Ala.) Enquirer*, but in doing so I have followed the method he had marked out before his death and put the matter into shape for plain people. He did his work well—honor him for it. He was great enough to tell the world how he did it—give him the glory.

Farmer, read the book, follow his plan and the result on your own land will prove to you that Farish Furman was the foremost farmer of his time, and your barns, filled with golden grain and your fields white with cotton, will testify that though he be dead he yet lives.

HUGH H. COLQUITT.

FURMAN'S FARMING.

FURMAN'S COTTON COMPOST.

To prepare the compost I select a piece of ground convenient to my lots, so as to avoid unnecessary hauling of my heavy manure, taking care that it is *not* in a low spot, where water might collect and seep the heap, and having cleaned it carefully, scatter my stable manure evenly over it, never allowing it to be more than three inches thick, when the manure is well scattered. If it is dry I sprinkle water over it, and *this is some thing that must by no means be omitted.* Water, and a plenty of it, is a necessity in a properly regulated compost heap, where decomposition and chemical reactions are valuable and essential. Each layer, both manure and cotton seed should be thoroughly wetted as it is laid down, as otherwise *one dry layer* running through your heap may give you cotton seed that will come up and give great trouble, especially if the crop is planted with selected seed.

THE COMPOST HEAP.

The compost heap should *not be built more than five feet high.* Keep the edges as nearly perpendicular as possible, and finish it off on the top with a covering of rich top dirt from three to six inches thick. The heap should stand after completion *at least six weeks* before using it, and if it could be so arranged that at the end of six weeks it could be cut perpendicularly down, mixed thoroughly and allowed to stand a month longer, it would improve the compost. I make such quantities of it that I have not time to do this, but as a rule, *the more compost is mixed and manipulated the better it is.*

THE FORMULA FOR THE COMPOST.

Take twenty-five (25) bushels well rotted stable manure or well rotted organic matter, as leaves, muck or rich top earth; scatter it about three inches thick upon a piece of ground situated so that water will not stand on it, but shed off in every direction. The twenty-five (25) bushels will weigh about 750 pounds; then take 250 pounds of "Farish Furman's Formula," or Chemicals for Compost, and scatter evenly on the surface. Take next twenty-five (25) bushels of green cotton seed and distribute evenly on the surface, and wet them thoroughly; they will weigh 750 pounds. Take again 250 pounds "Farish Furman's Formula," or Chemicals for Compost, and spread over the seed. We now have 2,000 pounds, or *one ton.* We then go back to the stable manure, or muck, or rich earth, and pile up in this way as high as we can go—*keeping above proportion*—then cover with six inches of rich top earth from fence corners, and leave *at least six weeks.* When ready to haul to the field, cut with a spade or pick-ax, square down, and mix as thoroughly as possible. Now we have twenty-five (25) bushels of manure, weighing 750 pounds, and 250 pounds of "Farish Furman's Formula," or Chemicals for Compost, and twenty-five bushels of cotton seed, weighing 750 pounds; then put 250 pounds more of "Farish Furman's Formula," or Chemicals for Compost, and we have the perfect compost. You perceive the weight is 2,000 pounds, value, at cash cost:

750 pounds cotton seed, 25 bushels,
10 cents per bushel.....\$ 2 50

500 pounds "Farish Furman's Formula," or Chemicals for Compost, \$26.00 per ton.....\$ 6 50
 750 pounds manure, or muck, or rotted leaves (nominal), 25 bushels, say allow for hauling..... 1 00

Total 2,000 pounds, or one ton perfect compost.....\$10 00

One (1) ton of the chemicals makes four (4) tons compost.

This mixture makes practically a perfect manure for cotton and a splendid application for corn. Our farmers do not appreciate cotton seed. That comes nearer to being a perfect fertilizer than any ONE THING in the world, and yet over 100,000 bushels were sold at my depot for a trifle and hauled away.

"With his cotton seed and stable manure saved and composted with decayed leaves, pine-straw, etc., any farmer can become rich if he wants to, and double the value of his land in three years."

Farish Furman's Formula," sold only by Furman's Farm Improvement Company.

"HOW MUCH COMPOST SHOULD BE USED TO THE ACRE?"

"It is hard to use too much. In France the average is 20,000 pounds to the acre. A Georgia farmer will hardly average 100 pounds to the acre. I will average 10,000 pounds next year. Nothing pays so well."

NOTE.—2,000 pounds of compost is recommended for general use. Any farmer can risk this, and the cost is not greater than 200 pounds of commercial fertilizers.

MUCK

Is decomposed vegetable matter, and very valuable. It should be drained, if too wet, and compounded with land plaster six weeks before using. It is as good as top soil for compost. It should be in compost SIX WEEKS BEFORE USING.

"I have received many inquiries as to the necessity or expediency of mixing the compost under shelter. A moment's reflection will convince any one that, where so much water is used in the manufacture of a compost, the addition of all that may fall upon the heap

as rain, for a space of two or three months, can do no possible harm. I never think of putting any shelter over my heaps. On the contrary, I have noticed that those that were built just along the eaves of my stable, so that the heap caught and retained all the rain from the roof, decomposed more thoroughly and satisfactorily than any other. No one need be uneasy about making such a compost heap as I have described in the open air. As decomposition takes place, there are in the heap itself, in the chemicals composing every *alternate layer*, materials that will fix and prevent the escape of any valuable gas that may be generated.

NOTE.—The compost heap can be made in the field on which it is proposed to apply it.

I have changed the position of my cotton rows four inches to the right every year, so that the compost would be thrown into new strips every year. In this way I have fertilized my whole field, instead of enriching the same rows year after year. I shall hereafter broadcast it.

NOTE.—Mr. Furman's explanation of why he should in future broadcast the compost was that he had in four years made the land rich enough to warrant the change.

PUTTING OUT THE COMPOST.

I have received a great many inquiries as to the best plan for putting out compost. I have found that for application *in the drill*, the quickest and most satisfactory way was to get negro boys, furnish them with half-bushel baskets made from white oak splits, make them take the manure directly from the wagon, keeping it just ahead of them all the time, and scattering it evenly in the drill. They require instruction at first, but learn very readily, and six boys, costing for labor, thirty cents each per day, will distribute the manure in drills as rapidly as two wagons, hauling a quarter or half a mile from the heap to the field, will bring the material. For broadcasting I find nothing equal to the "Kemp Manure-Spreader." It also has a drilling attachment, but it drills only two rows at a time, and cannot be used where the rows are more than four feet wide, and for drill application I prefer the boys, as above stated.

HUMUS.

In order to compost suitably for a proper system of *intensive farming*, you must have *humus*, and this can only be obtained from a proper mixture of animal and vegetable matter. Just think, gentlemen, of the millions of dollars that are annually lost to the farmers throughout the South, as the result of laziness and carelessness in a failure to pen our cattle at night. Give me a good pile of lot manure and cotton seed and the chemicals as I may need them, and I will guarantee to make a manure that will pay anywhere from one to five hundred per cent. on its cost in increased production of crops alone, leaving out of view the immense and permanent increase in the value of the lands upon which it has been applied.

I have received many inquiries as to how it is possible to manufacture so much stable manure as my formula requires on a small farm. This is an inquiry the force of which I appreciate, for in the *solution* of the question, how to *make an abundant supply* of stable, barn-yard and home-made manure, is to be found the *key* to the future prosperity of Southern agriculture. With our hot climate, burning sun, and parching winds, continuing uninterruptedly for six months or more, we have adopted, from necessity, a shallow surface system of culture, and the result has been that within the last twenty-five years the cultivated lands of the South have been largely drained of that supply of decomposed organic or vegetable matter known as *humus*, which, while it has no chemical value, or very little, is yet absolutely essential in order for remunerative returns from any soil.

There are only two ways in which this wasted material can be restored—by the use of a properly regulated compost, or by natural process, allowing the land to lie out and become covered with grass and reeds, which is, at best, a very slow, uncertain and unsatisfactory proceeding; or better, to plant in small grain and follow the grain with a crop of peas, manuring the peas with a chemical manure and allowing them to *die* on the *surface*, to be turned under in January, but never turned under green in our climate.

Restoring the humus to the soil¹ through the growth of the oar followed by the pea, is a plan, that as a natural one, is unsurpassed.

Now, to secure an almost unlimited supply of the valuable and essential material, all that any farmer who has within his reach the *pine-straw* of the South has to do, is to keep his stable, barn-yard, cow-lot and hog-pens always thoroughly littered with the straw, moving it out in heaps as soon as it becomes saturated with animal manure, and re-littering at once, say once a month.

Be sure to keep all your cattle up at night. I am satisfied that a well-fed cow will make from her droppings at night alone \$25 worth of manure in the course of a year. Don't be satisfied, though, with what you can get from your lots and stables; remember that humus is decayed organic matter, and that leaves and muck are a fine form of it. Gather all the decaying vegetable matter from the ditches and fence corners on your place, and add them to your piles that are accumulating ready for your winter composting. Go into the ponds and branches in your vicinity and gather the mud or muck, haul it up, mix it with a little land plaster, let it dry and add it to your heap. In short, turn your attention to accumulating *humus*; make up your mind that you *will* have it; gather it together day after day, and week after week, and at the end of the year you will find yourself wondering where it all came from.

The true plan is to save all the lot and stable manure under shelter that you can. Rake out your fence corners and ditches, and gather all the muck and humus or decayed vegetable matter that is rotting uselessly around your premises, and then compost them with chemicals in quantities and proportions to suit the requirements of the crop you expect to grow. And above all else, save your cotton seed for composting.

Cotton seed comes nearer being, within itself, a perfect fertilizer than any other one thing known to the farmer the world over.

Buy "Furman's Formula," the perfect chemicals to mix with your cotton seed—prepared only by "Furman Farm Improvement Company."

HOW MUCH COMPOST TO USE.

Make up your compost, and don't be afraid to use it. I applied this year five thousand pounds to the acre. George Ville, the celebrated European authority, says that in France and Germany twenty thousand pounds to the acre is the rule for the application of compost. In Ohio we are told that the compost raised on a farm of fifty-five acres from ten head of horses and thirty head of cattle, in the space of one year, was valued by the State chemist, after careful analysis, at twenty-six hundred and sixty dollars, and this was applied broadcast at the rate of forty thousand pounds to the acre, with the result of a clear profit of three hundred dollars per acre. This compost was made with muck and lot manure without the addition of any chemicals. With proper chemicals the result would have been much greater.

In the case of the growth of the cotton crop, the presence of humus disseminated generally through the land is of course of great value, but cotton is a tap-root plant, and in order to the successful and remunerative cultivation of all tap-root plants, we must manure in the drill, and my experience has taught me that to manure cotton heavily in the drill with chemical manure alone is dangerous, but if those chemicals are mixed thoroughly with decomposed humus in the presence of chloride of sodium that the danger, which is that of firing at time of drought, is reduced to a minimum. In fact, my experience with my compost, applied immediately in the drill under the cotton, at the rate, for the purpose of experiment, of five tons to the acre, has satisfied me that instead of tending to "burn the cotton up" it

absolutely kept it green and flourishing when unmanured crops and those manured with chemicals alone were parched and yellow.

"Farish Furmans Formula," made by Furman Farm Improvement Company, is Mr. Furman's last and best opinion as to the best chemicals to use.

FROM PRIMUS W. JONES, FOR YEARS THE FIRST BALE MAN OF GEORGIA.

NEWTON, BAKER COUNTY, GA.,
October 9th, 1883.

GENTLEMEN—As a practical farmer, I have tried many of the leading fertilizers, and I have no hesitancy in saying that "Furman's Formula" is the best fertilizer I have ever used.

It is undoubtedly a preventative to rust in cotton. I think Mr. Furman's entire system most excellent, and I consider his death almost an irreparable loss to the farming interests of the State.

My experience satisfies me fully that "Furman's Formula" and Furman's method of farming are the things for the lands of this State.

In some details I vary from him, but in the general plan I agree with him.

Yours truly,
(Signed) PRIMUS W. JONES.

GOLDSVILLE, LAURENS CO., S. C.
Mr. H. H. Colquitt, Atlanta, Ga.:

DEAR SIR—The "Buffalo Bone Guano," or Furman's Formula, ammoniated, I tried side by side with six other brands of fertilizers on cotton. I consider it twenty-five per cent. a head of any of the others from the time the cotton started to grow until it was gathered, and the yield was twenty-five per cent. greater. The "Furman Formula" for the compost is splendid. I want more this year, but can't tell how much until after Christmas.

Yours truly, J. S. BLALOCK.

Mr. Blalock is the best farmer in Laurens county, South Carolina.

COTTON IN THE DRILL.

PREPARATION — FERTILIZING PLANTING—CULTIVATION.

While the compost heap was in course of construction during the second year of my experiment—the first year being an experimental test, without manure, to determine the productiveness of the land—my plows were at work preparing the land for the reception of the compost. The plows used for the purpose

were upon the pattern of the ordinary seven-inch turn shovel, made, however, so as to be longer than the ordinary shovel, to give the plow penetrating power. These were attached to the Haiman stock, an iron foot-stock manufactured in Atlanta, combining strength, adaptability and lightness. With these the ground was thoroughly broken as follows: First, a ten-inch

shovel furrow was run in at intervals of three and a half feet, and the turn-plow furrow thrown upon this shovel furrow from each side until the ground was thoroughly broken with a water-furrow in each middle, throwing the ground up into broad beds three and a half feet wide. This was allowed to stand until just before planting time, when the water-furrow was opened with a ten-inch ordinary shovel, the compost placed in the hill and immediately listed upon, that is to say, covered with a furrow from each side, thrown upon it with a turn-shovel. This was allowed to stand until ready to plant; then two more furrows with the turn-shovel were thrown upon this list, one from each side, and the cotton planted at once in the fresh dirt, and immediately over the center of the list made by the four furrows, with a Dow-Law cotton planter, using two bushels of seed per acre. The time of planting was from the 1st to the 12th of May. It will be perceived that my planting was a late one, as it always is, and as I regard this as an important point in cotton culture, I will give my reasons for it later.

As soon as convenient, after the cotton was planted, the bed was completed by breaking out the middle with a straight shovel, leaving the cotton on a broad, flat bed, with a water-furrow in the middle. When the cotton came up and the third leaf began to show, a small sweep, sixteen inches wide, was run close up to it on each side, and it was chopped out two stalks to the hill, a hoe's width, or eight inches apart. After standing this way for several days, a larger sweep (twenty inches) was run round with one wing slightly turned so as to throw a little dirt to the cotton, and the hoes came round again, cutting out every other hill and putting the crop to a stand, or one stalk to the hill, sixteen inches apart.

From this time nothing was used except the sweep, running over the crop as often as any tendency to form a crust on top showed itself, and plowing as shallow as possible. Just before laying by, the hoes were sent over once more to destroy any bunches of grass that might thicken a crop of seed to give trouble to next season's farming.

The yield from the crop, manured and cultivated as stated, was twelve bales of cotton, averaging four hundred and seventy pounds.

NOTE.—Mr. Furman's first year with fertilizers.

Remember that Furman's chemicals can only be had properly prepared by Furman Farm Improvement Company.

CROP OF THIS YEAR.

The experiment made this year by Mr. Furman as set forth in the following pages, was one that required nerve and skill. The cotton did not come up for over two weeks after planting, and had very little rain from the beginning. It stood the July drought splendidly, and when I saw it in August it was the finest six acres of cotton I ever saw. It was the universal opinion of good judges that the yield would be at least eighteen (18) bales. The drought continued through August. The caterpillars also visited it. Only the bottom crop matured, and yet the yield was one bale to the acre. The yield on the 65 acres was about one bale to the acre, the cotton in the drill producing about the same, though it had only 4,000 pounds compost to the acre. The cotton in the drill was planted earlier than the cotton in the check. Mr. Furman was absent from home much of the time and he thought the cotton in the drill was very much injured by the cultivation. There can be no question that with ordinary seasons he would have made one hundred bales of cotton on the 65 acres. I am fortified in this view by the opinions of many good farmers who saw the crop at various stages of its growth. Mr. John Cobb, of Americus, Ga., a model farmer and a man of sound judgment, said in my presence, during the session of the State Agricultural Society, that he thought the crop was good for 100 bales or more. Mr. Cobb had just seen the crop.

Captain T. F. Newell, of Milledgeville, a large and successful planter, said he never saw six acres of such cotton; that it was the perfection of the cotton plant. Duncan's Mammoth Prolific seed were used on the six acres. He commenced planting on the 23d of April and finished planting about the middle of

May. The cotton in the check was planted last. The following is an extract from a letter from him dated April 21st:

SCOTTSBORO, GA.

H. H. Colquitt, Esq., Atlanta, Ga.:

DEAR HUGH:—Your letter has just reached me. I never go to town now, and only get the mail about once a week. I have been absent so much more than usual that my crop has gotten behind, and I am compelled to give it the closest attention to catch up. I will begin planting Monday, 23d, and will get through probably in two weeks. Until I finish planting I cannot leave.

Yours truly,

F. C. FURMAN.

COTTON IN THE CHECK.

Some confusion has arisen from the the interview with Mr. H. W. Grady, published in the *Atlanta Constitution*, that Mr. Furman never *hoed* his cotton, as it will be seen from the above extract from "*Home and Farm*" letter that he did hoe his cotton when *planted* in the *drill*, but in his *ideal method of planting cotton*, which was in the *check*, one stalk four feet apart each way, he did not use the hoe.

In breaking your land do not use a plow that will turn the *soil over*, but turn it *on edge*.

COTTON IN THE CHECK. ONE STALK FOUR FEET EACH WAY.

No Hoe Used—The Ideal System.

This system will not do on poor land and Mr. Furman did not advise it except on good land or on land brought up as his was, after four years fertilizing and cultivation.—Ed.

Cotton is a sun-plant and needs room for its roots; when cramped to 12 or 15 inches it cannot attain its perfect growth.

My aim is to put the plants in four-foot squares and average 75 to 150 bolls to the plant. This will give me a pound of seed cotton to the plant, or 3 bales to the acre.

HOW THIS IS DONE.

The land (6) six acres was first broken with a two-horse Syracuse plow—the land so broken as to turn it *on edge*, not turn it over from the bottom—then broadcast with six thousand (6,000) pounds of compost, and this turned in with a big *urn* shovel, then *harrowed* with a *Thomas smoothing harrow*, then laid off 4x4 with an 8-inch straight shovel and drilled one way with "Buffalo Bone Guano" or "Furman's Formula, ammoniated," 1,500 pounds to the acre. List on that, that is covered. Run furrow on each side with a *rooter plow*, then checked off by running a straight shovel across the furrows, four feet between the furrows, just marking the place to plant the seed at the intersection of the furrows four feet apart each way. List then opened by

driving or "socking in" a two-inch bull tongue as deep as it could go, so as to thoroughly mix the soil and the fertilizer, and at the same time forming a fine bed for the rootlets. The seed ten to fifteen (10 to 15) to the check, then dropped where the furrows meet, and lightly covered by raking a little earth on with the hoe and pressed on with the foot or flat side of the hoe. Soon after planting run a 12-inch straight shovel *through the middle both ways*. As soon as the cotton gets up enough to show the best stalks thin to one or two stalks to the check *by hand*. When the cotton gets up pretty well, and the grass begins to come, use a 20 to 22-inch Dickson sweep. About the usual time for plowing run an 8-inch straight shovel at right angles across the furrows made by the sweep, then apply 250 pounds "Buffalo Bone Guano" or "Furman's Formula, ammoniated," dropped on both sides of the plants in this furrow, then follow this at once with two furrows between the rows where the fertilizer is applied with 20 or 22-inch Dickson sweep, splitting the middles between the furrows and covering the fertilizer. When the cotton gets about knee-high use a 12-inch sweep, running at right angles with last plowing, put in this row 250 pounds "Buffalo Bone Guano," or "Furman's Formula, ammoniated," with cotton seed meal on both sides of the plant; follow this at once with a 20-inch

sweep, covering the fertilizer. The cultivation following is done with a 20-inch sweep. Plant from 10th to 20th of May, avoids July drought, cotton grows so rapidly it soon shades the ground and keeps down the grass.

WHY HE PLANTED LATE.

It will be perceived that my planting was a late one, as it always is; and, as I regard this as an important point in cotton culture, I will give my reasons for it now.

Cotton is a peculiar plant. If it ever stops growing from any cause, from drought or otherwise, it will never take on any more fruit on the old stalk, but puts out new twigs, upon which its new fruit must grow.

One of the peculiarities of our Southern climate is that almost every year we have a drought of greater or less duration in July, frequently accompanied by intense heat and parching winds. Cotton planted early, say from the 5th to the 20th of April, has progressed in growth and fruitage by July to a point where the bottom crop, or bolls on the lower limbs, have begun to mature, and therefore have gotten so large that the plant cannot cast them off, but must retain and mature them. Just at this time the drought comes on, the ground parches up, the plant begins to suffer and shed its fruit, for instinct teaches it that it is fatal to its prospects for a full yield to stop growing, and it will cast off all its fruit to avoid this danger. First it sheds its upper or youngest fruit, then the middle crop goes; but, with a continuance of the drought, when it undertakes next to rid itself of the bottom crop, it finds it is too far advanced, and in despair the plant stops growing, and throws all its remaining vitality into a supreme effort to mature the bottom bolls. Then the drought is broken, the August rains begin, the plant begins to grow once more, puts out new shoots, which in time become loaded with fruit, only to encourage the farmer's hopes of a good crop, to be certainly blighted by a frost that never allows it to reach its full maturity, and the farmer exclaims, "Oh, if I had only been able to plant a week earlier I should have made a splendid crop," when the truth is that if he had planted

two weeks later he could have largely avoided the injurious effects of the drought. Cotton planted in May is never sufficiently advanced to be injured permanently by a July drought. I growth is retarded, but not stopped. It throws off all its superfluous fruit, but continues to grow slowly, and when the August rains come it quickly becomes covered with fruit and rewards the labor of the husbandman with three full crops--bottom, middle and top.

In this State (Georgia) there is no report of an extraordinary production of cotton on any crop planted earlier than May. Mr. Warthen, of Washington county, a county adjoining the one from which I write, who has made the largest production from one acre of cotton ever reported, to-wit, five bales, planted his acre on May 13th, and I am satisfied that early planting will never give a full crop of cotton.

HOEING--REASON FOR NOT HOEING COTTON.

"I never touch it with a hoe. The growth of cotton comes from the spreading filaments that reach out from the root and feed it. If these are destroyed the growth stops till they are restored. I am satisfied three hoeings lost me eighteen days of growth, or six days each. I run a shallow plow along the cotton rows, and never go deep enough to cut the roots. *But these are mere details in which men may differ.* The main thing is the intensive system of manuring, and the husbanding all the droppings and wastage of the farm for compost. I can take any one hundred acres of land in Georgia and, at a nominal cost, can bring its production from a sixth of a bale to three bales per acre, in five years. ANY MAN CAN DO IT."

ARE YOU ENLARGING YOUR WORK?

Yes; but slowly. The difficulty with us all is that we try to farm too much land. I am good for \$3,000 with two mules and sixty-five acres. Next year I'll beat this. In the meantime, I am "bringing up" twenty-five new acres; I never want over one hundred acres. These I will cultivate with three mules, and I'll make two hundred and fifty bales of cotton on them, besides all the corn and oats I need.

OATS.

Use a good sulky turn plow—one that can be set accurately and relied upon to turn the land a given depth, whether it be soft or hard. *Harrow your land.* Plant oats after the first frost or freeze. Broadcast four bushels of oats and (50) fifty bushels of green cotton seed (or half this quantity of cotton seed and 200 pounds to 500 pounds of "Golden Grain Guano") or "Furman's Formula for Oats," at the same time plow in together. The oats will come up and then "stool," covering the whole face of the land. When the time for the oats to head arrives they will be ready, and you will not have to turn in your stock and your neighbors' stock, to graze them down to prevent them from maturing too soon. The first frost or freeze is usually as cold as any weather we have during the winter, and it is generally followed by some mild pleasant weather, during which the oats should be planted. The object of this late planting is first that you are able to get the green cotton seed to fertilize with; second, that it prevents the cotton seed from coming up, to the injury of your land; third, that it prevents your oats from being "winter-killed." Oats planted early in our semi-tropical climate find

the ground warm and the days hot, and they immediately come up, having a small root, and soon a big exposure; this renders them liable to be winter-killed. If planted as above directed, the oats find the ground cold and the nights cool, and the plant is thus put on notice and at once adapts itself to the surroundings; it makes a big root, comes up prepared for the weather, and "stools" and covers the ground; it does not grow much, but lives during the cold weather, and when the spring arrives it shoots up rapidly.

The decomposition of the green cotton seed under ground with the oats generates heat, and this tends to prevent "winter-killing."

For every bushel of cotton seed used as a fertilizer, the farmer can rely on the yield of an additional bushel of oats.

After careful experiments in the field, we have made an oat formula, that is nearly perfect; it is made by the analysis of the oat plant.

(Mr. Furman experimented this year by adding to it *soluble silica*, to remedy the trouble of "lodging," hoping to strengthen the stalk, but he stated that it was a failure).

Furman's Farm Improvement Company has the sole right to make "Buffalo Bone Guano" or Furman's Formula Ammoniated.

GOLDEN GRAIN GUANO OR FURMAN'S FORMULA FOR OATS.—Remember it: keep a crop on the ground; it prevents washing, it protects the land from the hot sun.

Nature manures from the top in tropical and semi-tropical climates.

He never plows cotton after it is a foot tall, except with a sweep; a scooter or turning plow cuts roots, which makes the plant throw off the fruit and go to weed. Better have grass and roots to the cotton than cheap crop of plants and no fruit. His rule is to break deep and plow shallow.

COTTON AFTER OATS.

If another crop is desired on the same land, as soon as your oats are cut lay off your land in rows seven feet wide as follows: Take a turn-plow and bar off each way, leaving a ridge from four to six inches wide in the middle unbroken. Break this out with two shovel furrows, put from five hundred to a thousand

pounds to the acre of "Furman's Formula, ammoniated," in the bottom of this furrow, and cover with a little dirt to prevent the fertilizer coming in direct contact with your seed, with a scooter furrow from the side, then sow your seed by hand, using plenty, from three to four bushels per acre, and cover with

a harrow or forked plow. You will get a stand in a few days. The stubble in the ground will prevent washing until it rots. The moisture in the stubble seeking an outlet will be drawn to the cotton. Your cotton at that season (almost the first of June) will grow very rapidly, then break out the middle of the rows. Now, when you give your cotton the last sweeping, drill peas in the middle of each row (*speckled peas* are here recommended) and apply with them about one hundred pounds of chemicals (suited to the pea crop) to the acre. Your peas will grow off rapidly, and will, in their turn, prevent washing; they will not interfere with the opening or picking of your cotton, and will protect the lower bolls against dirt, and will give you a magnificent coat of *humus* as a manure for your land. This method makes *three crops a year* and the product of the cotton will not be materi-

ally decreased. Time of planting, last of May to 1st of June.

ANOTHER ACCOUNT.

But to return: after the oats are cut the stubble will hold it. If another crop is desired on the same land, plant cotton in six (6) feet rows, using a ton of "Furman's Formula, ammoniated." On the land of the six feet rows leave eight inches of stubble on the line of each row of cotton, breaking from it on either side with a turning plow—one furrow, then break out the middle or eight inch stubble with a scooter, breaking about two-thirds of it the first furrow and going deep and taking the remainder with the second furrow. Plant five bushels of cotton seed by hand to the acre as usual, and when the cotton is knee-high plow out the middle and plant peas. Mr. Furman regards this as the best way to use a hillside, and is assured that it will prevent washing, restore the land, and pay well if persisted in for several years.

PEAS.

VALUE—HOW PLANTED AND CULTIVATED.

Mr. Furman valued peas very highly, and he called them the natural clover of the South. He called attention to the fact that the pea-plant had marked similarities to the cotton plant, and that he regarded the pea crop as the best means of supplying humus or vegetable matter. He recommended that they should be left to die on the ground before turning them under, for reasons fully given under the head of *Green Soiling*. When planted between cotton rows, or between stalks of corn, he used the *speckled pea*, but when he planted for a luxuriant pea crop for supplying humus or vegetable matter he recommended the *clay pea*. Many plant the *speckled pea* broadcast; he planted the *clay pea* in drills. On this subject he said:

"My object is to secure the largest amount of vegetable matter. The *clay pea* produces a ranker growth than the *speckled*, and the drilling plan enables you to fertilize and cultivate the pea crop. My plan is as follows: Start three single turn plows nearly abreast, one after the other. Let them break the ground thoroughly, going round in a circle and never stopping until the cen-

tre of the field is reached. Follow the third plow by a negro boy with a sack of chemicals—a pea fertilizer—(something on the order of the Ash Element, a cheap preparation suited to the requirements of the pea-plant), apply one hundred pounds to the acre. Follow him by a second boy with a sack of peas in the same row, drilling the peas. Thus, at one operation, practically, the ground is broken and fertilized, the peas planted and covered—a great saving in labor. The peas will come up in drills 18 inches apart. When the grass appears run a 16-inch sweep between the drills, one furrow to the center of the field, commencing at some point on the side or corner of the field, and running round in a constantly narrowing circle to the middle of the field. There will be no grass or weeds, and the fertilizer will make the growth of the peas a solid mass. It cannot be turned over possibly by any plow or number of horses. This mass by spring will be a loamy mould of several inches thickness; it will mulch the ground all winter, and turned under in the spring, will make the soil loose, attract moisture, allow the air to penetrate the earth more freely and become a chemical laboratory for the formation of plant food in binary compounds from

the monoforms. "Turn under by plowing across rows."

Mr. Furman stated that while under ordinary circumstances he would never allow stock to be turned in on his land, when the peas were at the proper stage, stock could be turned in on them with impunity, as the vines, etc., would serve as a spongy carpet to protect the land from packing. He also called attention to the fact that enough peas would be saved by planting as above, in the drill, to pay for the fertilizer used.

A FERTILIZER FOR EVERY CROP.

A HARROW A NECESSITY.

Mr. Furman was frequently asked if he manured every crop. His invariable answer was: "Yes; feed your land and your land will feed you. Use a special fertilizer to suit the requirements of each crop." He was frequently asked about using a harrow; his reply was: "I would not farm without a harrow. Would you cultivate a garden without a rake? A plant will not grow among hard clods."

GREEN SOILING.

Green soiling will do at the North, but farmers at the South had better let it alone.

It has been stated that I object to the use of vegetable matter from grass, peas, etc., as a natural means of fertilizing on soils. This statement is eminently wrong. I do object to what is technically known as *green soiling* in this climate and in our freestone soils. My experience and observation lead me to think that heavy masses of pea-vines, or a heavy growth of grass turned under green in this climate, causes an actual loss in fertility, unless, indeed, the land be impregnated with lime. I have never had an opportunity of trying the experiment on lime lands, but think that the result there might not be injurious. The reason that has suggested itself to my mind for this result is this: that in our climate where there are no freezes that penetrate any depth into the ground to aerate the soil, if you turn under, say a heavy coating of grass after oats or wheat while still green, the earth turned on top largely excludes the oxygen of the air and the mass of vegetable matter under our autumn sun, begin-

ning a rapid decomposition, and failing to receive the oxygen to render that decomposition healthy and perfect, runs into putrefaction, resulting in an acid re-action and the formation of large quantities of the vegetable acids which are absorbed by the soil, in a manner poisoning it and rendering it unproductive. This is my theory, sustained by my own experience and that of several of my neighbors. My experience has clearly demonstrated to me that it is best to let the peas, grass, etc., die on the ground and turn under when dead. These questions, however, are easily settled in each individual case by individual experiment.

The use of vegetable matter, whether as manure, stable manure, lot scrapings, or crops grown on the land and turned under dead—for I insist upon the use of vegetable matter in each and every one of these forms—is one of the most important features in my system, for these, combined with the perfect chemicals, make the perfect plant-food.

ANOTHER STATEMENT AS TO GREEN SOILING.

"I notice one point in your plan that is altogether novel and entirely at variance with the accepted plan of procedure in green fertilizing. The familiar plan is to turn under the green growth of peas, clover, weeds or grass. You say let it lie on the ground and rot until spring, and then turn under the mould. Why is this?"

"Oh, I know that I am in the teeth of all the agricultural journals and of ordinary practice. But I am none the less convinced of my position, because supported by experience and chemical reasoning. Of course the green vegetable matter must be rotted before it is of value in the soil. Now, I maintain that it is better to rot it in the air on the surface than under ground without adequate action of the atmosphere. Decomposition is like combustion: it requires the free action of air to go on perfectly. The abundance of oxygen is as necessary to the one process as to the other. In our hot climate, with heavy rains, when vegetable matter is turned under ground and the air excluded, a rapid decomposition inevi-

tably results. This quickly runs into putrefaction, and an acid reaction results in the evolution of water heavily loaded with vegetable acids. These are absorbed by the soil and poison it. By poisoning it, I mean rendering its plant nourishment insoluble and unavailable."

"Is not this a very startling theory? Have you any tangible ground to base it upon?"

"Yes, by frequent experiments, and by observation as well. I have noticed particularly the experience of a neighbor. Four years ago he had gotten eight acres of ground up to such a high state of cultivation that he made forty bushels of wheat to the acre, or a total of 320 bushels upon the ground. After the wheat was cut, the rich soil threw up a tremendous growth of weeds. They were over waist high, and exceedingly rank. Acting upon the common plan, he turned under the growth to enrich further the soil. The effect was wonderful. The next year he put the land in oats and it did not make the seeds sown. The oats were stunted and unhealthy looking. Since then he has treated the land well and continued to fertilize it. Yet this year, the fourth since he turned under the grass, he made only twenty bushels of wheat upon it.

Evidently he poisoned the ground, and rendered the plant-food in it unavailable by the acid reaction of the unnatural decomposition of the grass and weeds."

"Would not there be a difference in such a formation of acids in lime lands and in the sandy land of your neighbor's unfortunate experiment? Would not the free lime absorb these acids, supplying the very thing needed?"

"Probably the deleterious effect might not be so great in the lime lands, but there could be no advantageous results, for the acid and lime combination would be insoluble and unavailable as plant food. But such a process, if kept up several years, would certainly neutralize all the free lime, and work a decided injury sooner or later. By all means let the humus be formed in the open air, and turn it under in the spring. This is the natural process of supplying the earth with vegetable matter. It is going on all the time in the woods, and makes the mould that every one knows to be valuable as an assistant to any vegetable growth. It is the process by which in the cycles of years the bald rock, that first was separated from the water in creation, was converted into a habitable earth."

KAINIT.

Great care should be taken in using this most valuable material. Many farmers have complained of stalks of cotton being killed by it, and in some cases Furman's system has been abused on account of it. Unless properly and carefully mixed bad results will follow, and Mr. Furman stated in one of his "Home and Farm" letters, and also in his interview with the "Georgia Truck-Farmer," that so important did he regard the necessity of its accurate and thorough manipulation by machinery, to the success of his system, that he had aided in organizing the company of which he was president at the time of his death. The company now bears his name, and pays a royalty to his family for his formulae. No other company can furnish his complete formulae. Don't be deceived by others offering to sell materials to make his brands. The "Furman Farm Improvement Company" alone furnishes his entire system and his improved fertilizers. *Every sack is branded "Furman's Formula."* This company use only the purest and best materials, and sell these perfect fertilizers at the lowest cash figures.

Ask your merchant for these fertilizers. We shall put them in your reach, if possible, and if you will write to us we will see to it that you get them.

Furman Farm Improvement Co.

ATLANTA, GEORGIA.

* * * * *

"Just here I think it proper that I should call the attention of my brother farmers to one very important fact, and that is the great value, in the use of the chemicals, of a thorough, fine division or comminution of the materials. This principle is thoroughly understood and appreciated by the medical world in the application of mineral medicine to the animal economy. For example, it is well known that calomel, reduced to an impalpable powder, requires but one-tenth in weight to produce a given effect as the same medicine before ground, or when in the ordinary coarse, grainy condition. This same rule in the application of mineral manures to the vegetable world holds equally good, and for this reason I recommend the mixing of the chemicals before they come into the hands of the farmers with properly arranged machinery. I have had great trouble myself in mixing my chemicals, and have never succeeded in this portion of my work as I would have desired. Realizing this, I made arrangement this year to have the chemicals mixed by machinery in Atlanta, and I have found it a very decided improvement on the old way."

Any farmer can safely use 2,000 pounds compost, it does not cost more than 200 pounds commercial fertilizers—500 pounds of "Furman's Formula" chemicals for compost will make 2,000 pounds compost.

FURMAN FARM IMPROVEMENT COMPANY.

This company was organized in October, 1883, by Mr. Hugh H. Colquitt, Professor N. A. Pratt and Mr. W. C. Grasty. Mr. Farish Furman became a director in December, and was elected president. Through Mr. Furman's efforts, aided by Messrs. Colquitt and Grasty, over 40 of the leading merchants in Georgia, Alabama and South Carolina became stockholders. It is a home company, operated with home capital. The original name of the company was "Southern Mining and Farm Improvement Company." Soon after Mr. Furman's death, the name of the company was changed in his honor, to "Furman's Farm Improvement Company." The large factory of the company is located at East

Point, connected by telephone with the office in Atlanta. The company is ready for business.

ITS OFFICERS ARE:

E. W. MARSH, (of Moore, Marsh and Company,) President.

W. C. GRASTY, JR., Vice-President.

L. J. HILL, (President Gate City National Bank,) Treasurer.

PROF. N. A. PRATT, Chemical and Mining Engineer.

HUGH H. COLQUITT, General Manager.

J. M. PATTON, Secretary.

JOSEPH F. ALLISON, Superintendent.

READ THE PRESS NOTICES.

Atlanta Constitution.

THE FURMAN FARM IMPROVEMENT COMPANY.

The quickest building ever done in Georgia, in our knowledge, is recorded in the erection of the factory for the Furman Farm Improvement Company, at East Point.

This company organized last year with a heavy capital and put their fertilizers, specially prepared under Mr. Furman's supervision, on the market for the first time. It was known that they were very successful, but never until this season approached, and the demand began to open, did the company appreciate the remarkable demand this one season's record had created.

It then became necessary to build a large factory in the shortest possible time. The company broke ground for the new factory on September 29th. The building was finished on November 15th, or in just 46 days. It occupies over one thousand feet of railroad front, covers nearly an acre of ground. Over 160,000 feet of lumber was used, and yet the carpenters' work, including the heavy timbers necessary to support the acid chambers, was done in twenty-five days. The materials for the building were bought

from the firms named in the advertisement on the first page of *The Constitution* after close figuring was done with all the leading firms in the various lines.

The company offers for sale excellent fertilizers, made after Mr. Furman's formulae. They have been tested for several years on Furman's farm, where they produced the most wonderful results. Last season when first generally introduced they gave the highest satisfaction. The company is a home institution—has strong men of high character in its make up, and deserves the hearty patronage of our people.

TO THE FARMERS OF THE SOUTH.

"Farish Furman's Formula" is prepared only by the "Southern Mining and Farm Improvement Company," H. H. Colquitt, General Manager, Atlanta, Ga. Mr. Colquitt's company guarantees the grade of the goods, and agrees to sell at what I know to be bottom prices, and I have authorized them to sell these goods with my name and brand to prevent any impositions to the injury of the planter and my own hurt.

F. C. FURMAN.

The above letter was written by Mr. Furman last season, and in order to insure the perfect preparation of the

"Formula," he united with the company and became its president. The company, in his honor, changed the name to 'Furman Farm Improvement Company.' His family get a royalty on the fertilizers we make, and we alone have the information for making "Furman's Formula" as perfected by him.

[From the Atlanta Constitution, May 20, 1883.]

AN IMPORTANT ENTERPRISE.

A FACTORY FOR WORKING FURMAN'S FORMULA—KEEPING OUR MONEY AT HOME.

Late last season Mr. H. H. Colquitt offered for sale a fertilizer made up after the formula established by Mr. Furman. Mr. Furman himself wrote out the formula and superintended its manufacture. More than 1,000 tons were sold and delivered, and much more ordered but not supplied.

Appreciating the demand for this fertilizer, Mr. Furman, Mr. Colquitt, Mr. Grasty and a few other gentlemen determined to establish a factory for working up this formula. They associated with them Dr. N. A. Pratt, whom we have commended in these columns as having done more for the mineral development of the South than any other man within its borders. The enterprise is well under way, and enough capital has been subscribed to make it an assured success.

The plan of the company is to furnish the chemicals commuted in the proportion and manner as directed by Mr. Furman and under his control, so that the farmer can buy it and compost it with his own cotton seed and stable manure, and secure a perfect fertilizer for cotton at less than half the cost of a full commercial fertilizer; also, to make a full ammoniated fertilizer by the addition of cotton seed meal and all else that is needed. Each of these plans they will offer to the farmer.

The company has secured three iron pyrite mines, out of which they will make its own sulphuric acid, and their works will be under the supervision of Dr. Pratt, who put up the acid works both here and at Nashville. This gives perfect assurance that the work will be well done. Arrangements have been made for cotton seed meal, and everything in the fertilizers except the phosphates will be taken out of Georgia soil. Other things being equal, every ton of home-made fertilizer purchased in place of a foreign article is just so much better for the State.

It is proposed, we believe, by the company, to extend its field of operation and enlarge its capital somewhat by offering to take one stockholder in each town in Georgia, and thus interesting at least one merchant in the sale of the new formula. *The Constitution* has no interest in the enterprise beyond what

it has in every scheme that looks to the benefit of the State. Every factory built by Dr. Pratt has an unequivocal success, and his plan, backed by the "Furman Formula," and preparing the acid phosphate and kainit for composting, promises not only to be profitable, but of great advantage to Georgia in stimulating composting and in keeping our money at home.

[From the Chronicle and Constitutionalist.]

FURMAN'S LATEST PROJECT.

There seems not to be the slightest doubt, but rather cumulative testimony of the highest character, that Hon. Farish Furman has practically demonstrated that, by his intensive system of agriculture, the poorest land in the South can be made as productive as the alluvium of the Mississippi or the Valley of the Nile. As a specimen of what his culture has accomplished, we are told that on some acres of what was once barren Georgia upland, Mr. Furman, in spite of drought, expects confidently to make twenty bales of cotton! Liebig attributed much of the decadence of the Roman Empire to the building of the Great Sewers of the capital city, whereby the fertilizing material, that should have gone back to the land from which it was taken, washed into the Tiber and was lost forever. Mr. Furman demonstrates that modern chemistry has provided a method for re-establishing worn out or exhausted soils, and that no place on the earth's surface has advantages superior or equal to the South in the production or manufacture of the material used in recreating the impoverished fields of the country. Having demonstrated the excellence of intensive farming, he has gone farther, and, in conjunction with Mr. H. H. Colquitt and others, proposes a plan whereby another mining and manufacturing industry shall be added to other enterprises of a similar import in the South.

Unless all demonstration be fiction, Mr. Furman has solved the greatest agricultural difficulty of the age, especially as it applies to the South, by producing a manure that is thoroughly adapted to the planters' wants, and that not only compels unprecedented crop yields, but leaves the soil infinitely richer and better than it ever was in any stage of its existence since the foundation of the world.

His next step, and not less important, is to deliver this people from the bondage of alien fertilizer manufacturers, and keep at home the surplus wealth that is only too often sent abroad for imperfect and even dangerous material. Mr. Furman claims—and his experiments would seem to demonstrate the claim beyond cavil—that he has hit upon the perfect formula for cotton. His engrossing idea now is to have the South manufacture

her own fertilizers, and, to that end, and as an incident to it, develop her mines of pyrites from which the acid necessary shall be drawn.

It is the ambition of Mr. Furman, as we understand it, not only to show the South how to comprehend and apply a perfect fertilizer, but that this fertilizer shall be essentially a Southern product a long way better, cheaper and more fructifying than the material that has made millionaires of so many Northern people and paupers of so many Southern farmers. Mr. Furman, as we view it, has fulfilled all the conditions of being considered such a public benefactor. He only needs to be sustained by Southern farmers and merchants to an extent that will not only prove beneficial to them, but to this section, which provenly contains, according to Prof. Pratt and other experts, all the necessary raw material for a complete restoration of the soil, its permanent fertility and the saving of millions of money that annually go out of the South's pockets to the vast enrichment of strangers and the disastrous leeching of our people. If Mr. Furman and Mr. Colquitt can stop that drain of money and turn it upon our own cities and fields, they are worthy of the highest honors any nation could bestow upon its worthiest citizens. They feel assured of success, and we see no reason to doubt their highest anticipation. If Furman can make a fertilizer that performs miracles on poor land, there is no reason to question his ability to apply intensive finance to intensive agriculture.

[From the Georgia Truck-Farmer, Fort Valley, Georgia.]

FURMAN'S FORMULA AS COM- POUNDED BY THE SOUTHERN MINING AND FARM IM- PROVEMENT COMPANY.

AN INTERESTING TALK WITH MR. FURMAN.

The *Truck-Farmer* office was honored on Friday last by a visit from Hon. Farish C. Furman, the man with whom originated the celebrated formula which is now so extensively and profitably used in all the cotton growing States. Mr. Furman is president of the Southern Mining and Farm Improvement Company, of Atlanta, and was accompanied by Mr. W. C. Grasty, treasurer of the same, and we have seldom had a visit from two more pleasant and agreeable gentlemen. Mr. Furman is traveling over Georgia in the interest of his company.

When asked about the aims and objects of his company, Mr. Furman said: "The Southern Mining and Farm Improvement Company" is an enterprise to be located at Atlanta, Ga., the object of which is, first, the production of standard chemicals for fertilizing purposes of

superior grade from Georgia pyrites and Carolina phosphate rock at bottom prices. Second, the manufacture from these chemicals.

First, of the chemical constituents of Furman's formula to be offered the farmers in the best possible condition for use in composting with muck and home-made manure; that is to say, thoroughly mixed and finely divided or comminuted by suitable machinery, making the same materials much more available as plant food, and therefore more valuable to the farmer than if mixed on the farm with the hoe and spade.

Second. The preparation of special manures for each variety of crops grown in the South. As, for instance, a special manure for cotton, one for corn, one for oats and one to suit the requirements of the truck farmer.

Some agricultural journals have taken the position that it is cheap and better for the farmer to purchase the chemical ingredients of Furman's formula separately and mix them at home himself, but this is a mistake. In the first place, there is danger of his not getting first-class material; in the second place it is impossible upon a farm to thoroughly mix and comminute the materials as can be done by proper machinery at the factory.

To give an idea of the increased value produced by fine comminution or division of the particles, take an illustration from the animal economy:

Calomel reduced to an impalpable powder produces with the same weight ten times as great an effect upon the human being as the same substance in a coarse powder. So it is with chemical manures in their relation to an effect upon the vegetable world.

The finer the subdivision and the more thorough the mixture, the more immediate and sustained will be the effect. The efficacy of the formula is increased at least twenty-five per cent. by this means.

The intention of the directors and incorporators is that this is to be essentially a farmers' company, the capital stock is one million dollars, in shares of a par value of ten dollars each; it is intended that this stock shall be scattered among the farmers of Georgia, Alabama and South Carolina, with the idea of securing in every investor a friend and customer, whose interest it will be to build up the company in which he has invested. The enterprise so far has been received with marked favor, and there is ever an eagerness shown to invest on the part of every one who has been approached on the subject.

The idea of the originators is that its success will do more to encourage practical co-operation among the farmers by giving them a community of interest than any other enterprise ever stated

at the South. The intention is to sell close for cash, thereby encouraging cash purchase on the part of the farmer, and discouraging the ruinous credit on time system that is sapping the vitality of the country.

The motto will be quick sales and small profits—which motto will, it is believed, insure generous dividends for the stockholders—keeping all our money at home. Of the demand for the goods there is no doubt. Some of the goods were manufactured and put in the market as a test, in February and March at Atlanta, by Mr. H. H. Colquitt, by authority of Mr. Furman, and selling only for cash. Mr. Colquitt sold all he had prepared and received orders for hundreds of tons he was unable to furnish.

The issue of the enterprise will be most beneficial from every standpoint; it will furnish the farmer a standard article of chemicals, at a rate it is believed lower than ever offered before, and as some of these chemicals will be prepared peculiarly with a view to composting under Mr. Furman's plans and printed directions that will accompany each sale. It is hoped and believed that a wonderful stimulus will be given the saving and production of home-made manures, without close attention to which no system of agriculture can permanently endure and prosper. For instance, the manure from one cow carefully saved, and mixed with litter, etc., which should be placed under the cow at night in a pen in which the cow should be confined, is worth not less than fifty dollars a year, and in a failure by laziness and carelessness on the part of Georgia farmers to pen their cattle at night on the proper litter of pine straw leaves, etc., there is a clear loss of millions of dollars a year.

From the Macon Daily Telegraph.]

FARMER FURMAN'S FORMULA.

We are fixed in the faith that our farmers should plant less land, and work what they plant by better processes, and that every pound of manure saved and used on the farm adds to the material wealth of Georgia. We trust that Farmer Furman's formula may prove an universal success, and because we so wish it we cannot adopt the hysterical style of writing of it until it has fairly stood the test of time.

We are pleased to know that it is to be presented to the farmers of Georgia in such a shape as should induce them to give it a thorough trial. A company has been formed to prepare the chemicals to be used in this formula at Atlanta, Georgia. This company embraces among others W. C. Grasty, Esq., a gentleman of cool judgment and business experience, and Dr. Pratt, a chemist, whose fame is not confined to Georgia. The company has engaged the products of mines furnishing the best of

copper pyrites, from which to manufacture sulphuric acid. The phosphates will be obtained in South Carolina, and the kainit must be imported from Germany.

FURMAN'S FARM.

WONDERFUL WORK ON A SCRUB FARM—GROWING FROM EIGHT BALES OF COTTON ON SIXTY ACRES TO ONE HUNDRED BALES, AND HOW THE INCREASE WAS MADE—FORMULA FOR FEEDING THE EARTH—STARTLING FIGURES.

Special to the Atlanta Constitution.

ATLANTA, Ga., September 30.

I suppose there are few readers of *The Constitution* who do not remember Farish Furman.

He was a bright and brainy Senator in 1876, and led the capital campaign against Atlanta—was mentioned for Congress—and I always esteemed him as one of the best equipped and most capable of our young politicians. A few years ago he quit politics and went to farming. I heard that he had settled on a thin piece of land with poor prospects, and, in common with many of his friends, thought he had dropped out of affairs.

At the last Agricultural Convention he electrified the older farmers of the State with the details of the most astounding five years' farming ever done in a Southern State, and is to-day more talked about in the State than if he had served in Congress twenty years.

I have heard the record of his wonderful work several times within the past few months, and the comment with which it is usually greeted is, "I don't believe it." I simply say that I have the authority of at least three excellent gentlemen for the truth of the following main points:

Furman started with sixty acres of the very poorest land in Middle Georgia five years ago. The first year he made eight bales of cotton on the sixty acres, or less than one bale to eight acres. This shows that it was the poorest of scrub land.

The second year he put 500 pounds of compost to the acre, and made twelve bales of cotton where he made eight before.

The third year he used 1,000 pounds of compost to the acre, increasing the yield on the sixty acres to twenty-three bales.

The fourth year he used 2,000 pounds of compost to the acre, and increased his crop to forty-seven bales on the sixty acres.

The fifth year he used 4,000 pounds of compost to the acre, and his crops certainly above eighty bales to the sixty acres, and may reach one hundred bales.

He has done all this work with two

plows, and eighteen days extra plowing. His official and detailed statement shows that the total expenses were \$2,300, and his net profits \$2,725—a fine record on a two-horse farm. In addition, the land that was worth \$5 an acre five years ago is now worth \$100 an acre. So with two mules this year he has raised at least 80 bales of cotton, 1,000 bushels of oats and 400 bushels of corn.

From the Charlotte Observer.]

FURMAN'S FARMING IN CAROLINA.

A good deal has been said in our columns lately about the extensive system of farming pursued by Mr. Parish Furman, of Georgia, and on a trip to Cabarrus county the first part of this week this writer saw a practical demonstration of its wonderful results. Mr. Ervin Harris, a young farmer of Poplar Tent, became interested in the accounts of Furman's intensive system and concluded to try it. He selected an acre of ground which he planted in cotton after Furman's plan. He put on this acre of ground 1,200 pounds of compost. The early season was bad and the cotton did not get a good stand, but, this fact to the contrary notwithstanding, he will make fully three bales from this one acre. The cotton is neck high to a man and there are from fifty to seventy five bolls to the stalk. Mr. Harris never hoed the cotton, but ran a plow through to cultivate it. He is so well pleased with the result that next year he will, he says, cultivate as much land as his means will allow under this intensive system. It is simply wonderful, and with these practical results before their eyes, it will not be long until all our farmers are pursuing Furman's method.

EXTRACTS FROM MR. FURMAN'S SPEECH.

The only other question left for consideration, and one with which I am frequently confronted, is: "Granted that it can do all this, does it pay?" "Is it not too expensive for general adoption?" "Is it within the means of the average Southern farmer?" To answer these queries I will draw again upon my own experience and give you the figures covering my five years' experiment on sixty acres of land.

Five years ago I selected sixty acres of the poorest land in middle Georgia, five acres being red clay, twenty-five sandy surface with clay subsoil near the surface, and about one-half or thirty being sandy piney woods land without any clay within several feet of the surface. I cultivated this carefully the first year without manure, and made on it eight bales of cotton. The second year I applied 500 pounds of compost per acre, consisting of six bushels cotton seed, six bushels stable and lot manure, and one

hundred and forty pounds chemical, costing two dollars per acre, making the cost of manure used on the sixty acres \$190. The crop was twelve bales cotton, averaging 470 pounds and bringing \$47 per bale—giving four bales of cotton increase, or in money \$188, and leaving a profit on its use, after paying for the manure, of \$68, or about 60 per cent. The third year I doubled the manure, using one thousand pounds per acre, costing on the sixty acres, in the aggregate, \$240 and the crop nearly doubled, rising to 23 bales and giving an increase of 15 bales, worth \$675, with a profit from the use of the manure of \$435, or nearly two hundred per cent. on the money invested in manure. The fourth year I doubled the application again, with an aggregate cost of \$480, and this time the crop was a little over doubled, being for this year 47 bales; the increase over the first year being 39 bales, worth \$7,755, leaving a profit of \$1,275, or nearly 300 per cent. on the investment. The fifth of last year I again doubled the manure, using 4,000 pounds to the acre, costing altogether \$960, and the crop harvested was 70 bales cotton and 500 bushels oats—five acres of the land having been planted first in oats and afterwards in cotton, with a yield of 500 bushels oats and 7½ bales of cotton. Putting the oats at 60 cents per bushel, the money value of this crop was \$3,450, leaving a profit on investment in manure of \$2,490, or a percentage of profit of nearly 260 per cent.

You will observe that the percentage of profit was not quite so great this year as last, but the return in money was greater, as there was twice as much invested, but the profit in the use of the manure in increased production represents only one branch of the profit. While I was increasing my crops and receiving heavy dividends, I was building up my land. When I began, two hundred dollars would have been a large price for the sixty acres; to-day I could sell it for fifty dollars an acre; so that twenty-eight hundred dollars has been made by the increase in value of the land, but the manure used during the time only cost in the aggregate \$1,800; so the enhanced value in the land pays for the manure and leaves a thousand dollars as profit. Again, to make 70 bales of cotton and 500 bushels of oats, with the average production of Georgia or Alabama lands, will require at least 250 acres of land, and it will take at least eight mules and labor in proportion to cultivate it. I cultivated my crop with two mules, thus saving the investment of nine hundred dollars in that most undesirable of all property, a mule, when run by cuffee as a freeman, saving the labor of a six-mule farm and the feed of six mules; really, under the intensive system, I cultivate my sixty acres of land with less labor than a crop of sixty acres required under the old system. I

plant late, and all good farmers know that means less work, and my crop grows so rapidly that it, as it were, works itself and I soon have to lay it by, whereas under the bumble-bee cotton system, it is a hard fight all the year between the cotton and the grass, and the farmer is kept constantly digging to save his crop.

Again, I am able to employ and secure the best and most effective labor. There are two ways of controlling men, one by the hope of reward, and the other by fear of punishment. I have found that by holding out inducement to my laborers of extra wages in the event that a certain fixed product is obtained, that the quality and efficiency of their work is greatly improved. Again, they take a pride in the crop, and are as careful and constant in their efforts to secure a maximum result as I myself.

If then the intensive system is so preferable to the old or extensive, why, you will ask, is its adoption not more universal? Remember that Rome was not built in a day. It takes time to revolutionize the habits of thought and action into which a people have crystallized by the practice of three generations. But I note in the eagerness for thorough practical information as to the new system that every day is becoming more extended and more earnest among our people, a golden bow of promise spanning the horizon that overhangs the destinies of the new South. And I predict here to-day that we have already entered upon an era of success and prosperity, such as has never yet been recorded for any people in the annals of history.

* * * * *

All the learned professions are crowded to overflowing. We need no more professional men. The great crying necessity of this country is intelligent, educated agriculturists.

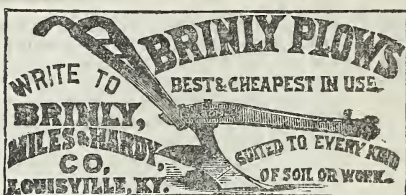
Your native state has wisely opened up here within these academic halls an opportunity for you, by embracing which you may educate and prepare yourself peculiarly as a farmer. Seize

upon the opportunity; make scientific, intelligent agriculture your study and delight, and my word for it, you will never regret your choice, for it will bring you fame and wealth, and what is better than either, contentment. Do not be satisfied to be a mere tiller of the soil; study, originate, make your agriculture what it is—a scientific profession.

Above all study nature; commune with her from early morn till dewy eve. Strive to learn her laws and follow them, for in so doing lies the secret of success in any department of life's labor, whether in science, the arts or agriculture. Search ever after the truth—not that truth which justifies you or your pet theories to yourself, but seek truth for truth's sake and when you have found it follow its lead. Nature is always true, and if you can find out what nature wants you will never make a mistake. Nature's laws like nature's God are fixed, eternal, unchangeable, and the success of that man is assured, who conforms accurately to their requirements.

If any of you can but ascertain the natural laws applicable to and controlling any branch of agriculture and then by following them carefully and conscientiously can succeed in building a system that will cause two blades of grass, two stalks of grain, two ears of corn, or two bolls of cotton to spring and grow where but one grew before, then indeed is your mission on earth not a fruitless one, though men may fail to erect in your honor monuments of marble or of bronze, and though none may attempt to perpetuate your memory embalmed in glowing canvas, or carved upon the chiseled stone—you will leave an impress behind you that time cannot efface, and that will last long after the bronze or marble shall have crumbled into dust. The good that you have done will not die with you—it will live on—it will but broaden and deepen with the growth of time, and its influence will only cease to be exerted for the benefit of suffering humanity when time itself shall have lapsed into eternity. Seize

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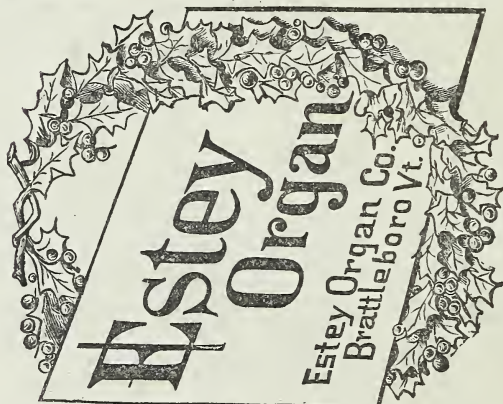
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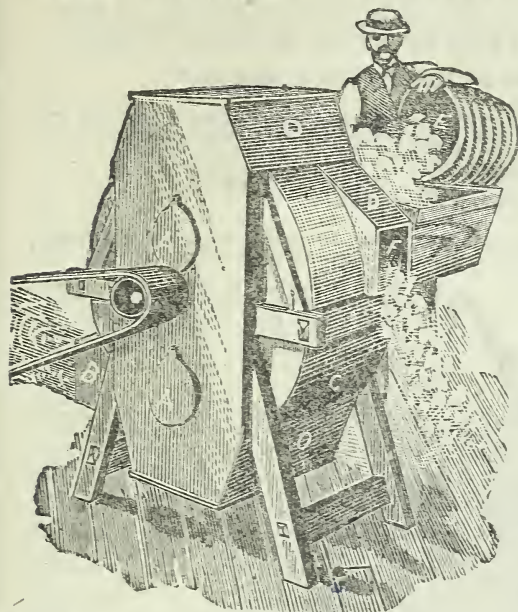
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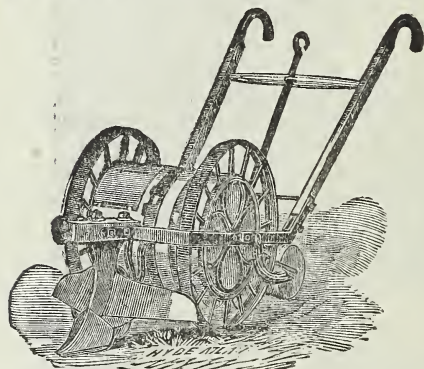
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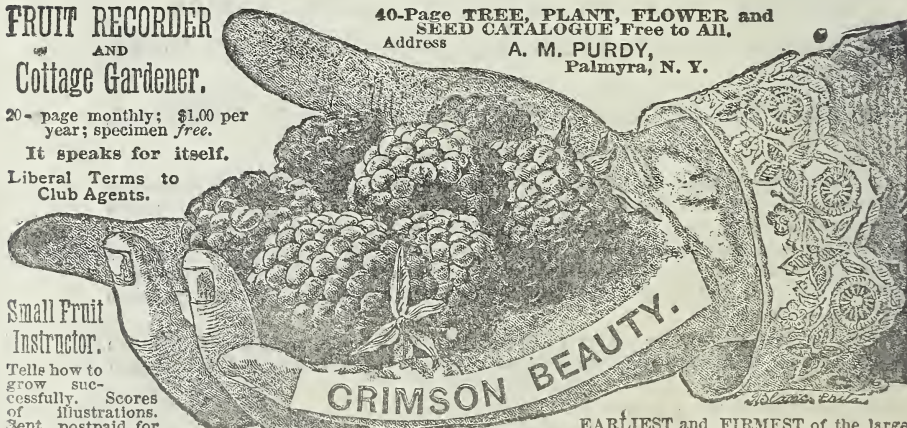
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In Memoriam.

FARISH FURMAN.

Farish Furman was born in Baldwin county, Georgia, in July, 1846. His mother was a daughter of Farish Carter, in his days the largest slave owner and wealthiest man in Georgia, at one time owning over two thousand slaves. His maternal grandmother was Miss Eliza McDonald, a sister of Charles J. McDonald, who was at one time Governor of the State, and one of its most prominent statesmen.

Mr. Furman's father was Dr. J. H. Furman, of South Carolina, a son of the Rev. Samuel Furman, and grandson of Dr. Richard Furman, of Charleston, an eloquent Baptist minister, after whom the Furman University in Greenville, S. C., is named.

Farish Furman entered the Southern army in 1864, and served as a private until the close of the war. He then matriculated at the South Carolina University, at Columbia, and then took the degree of A. B. In 1868 he went to Macon, Ga., and began the study of law. In March, 1869, he was married to Miss E. F. LeConte, eldest daughter of Dr. Joseph LeConte, the celebrated scientist, now professor of geology in the University of California, under whose tutelage he was graduated in chemistry—Dr. LeConte being at that time a professor in the South Carolina University.

He was admitted to the bar in July, 1869, and at once moved to the old homestead near Milledgeville, and opened a law-office in the town. In 1873 he was appointed, by the Governor, Judge of the County Court of Baldwin county, and held the office until 1877, when he was elected to the State Senate, and was largely instrumental in calling a State convention to form a new Constitution. When the convention was called, he was sent to it as the champion of Milledgeville upon the question of the restoration of the capitol, which in the days of reconstruction had been removed to Atlanta.

The convention having remitted this question to the people, he took the stump and canvassed a considerable portion of the State on it. In 1879 he was appointed, by the Governor, State's Attorney in his judicial circuit; and having been defeated in the contest for the succession to this office before the legislature (this being his first and only defeat) he retired in disgust from politics

and turned his attention to his landed interests, fortunately for the agricultural interest of the State. However valuable may have been Mr. Furman's services in politics, his services in agriculture have far surpassed them.

The above was published in the *Home and Farm* and we supplement with an additional notice from the same paper:

The announcement of the death of Farish Furman will be received throughout the South with feelings of deep regret. Among the Southern farmers his death will be felt as a personal loss. As yet a young man, full of energy, active and careful in his investigations, successful to an unusual degree in his experiments, he had, though a lawyer in the active pursuit of his profession, come to be perhaps the most influential teacher, in a practical way, of all who give any thought to agricultural topics.

The readers of *Home and Farm* are able to appreciate fully the value of the labors of Mr. Furman. His formula for making a fertilizer on the farm, for utilizing what formerly had been thrown away, has now been tried by thousands, and, when followed carefully, with uniformly gratifying results. His methods have, in fact, inaugurated a revolution in agriculture in the South, the full effects of which we are now beginning to realize. Mr. Furman did not propose a radical departure; there was no effect on his part to overthrow any preconceived opinions or to combat any heresies. He simply applied knowledge which elsewhere was valuable to the farm. He used the materials which are within the reach of all. He reasoned about his work; he was observant, careful and painstaking; he was logical and exact. The results, as we say, can not yet be estimated. He has done a good work for his people; a better work can no man do. He has earned his rest, and, though he departs at an untimely hour, though he puts down his implements of labor just when he seemed best able to handle them, though now the world seemed least able to do without him, we know his work was done. Of every faithful worker, of every man who does earnestly and conscientiously what day by day is given him to do, it may be said, as once said a great preacher, "He is immortal until his work is finished."

FARISH FURMAN.

A MAN OF GREAT PROMINENCE IN GEORGIA CUT DOWN IN HIS YOUTH.

[From the Augusta Chronicle.]

About two months ago Judge Farish Furman called at the *Chronicle* office while passing through Augusta. This was the first and only time the writer ever beheld him. Though thirty-seven years of age, he did not look anything like it, and the high, bright hopes beaming in his whole countenance and giving tone to every look and syllable, made him appear still more youthful. He had become famous as a practical planter, and by precept and example had done more perhaps than any man of his years to fire the whole agriculture South with emulation of his own remarkable career. It is said that the formula he had given to the world was not original. Granted; but he had the signal credit of not only popularizing it, but demonstrating substantially that the poorest land in the South can be made to produce crops equaling and often surpassing those fertilized by nature and unworn by culture. He was a splendid type of the younger generation of men, who are to build up this section, and make it the most productive on the earth. It is to his credit that, finding that law and politics could not satisfy his ambition, and that other men were apt to gain more local celebrity than himself in such pursuits, he turned his acute intellect, his oratorical gifts, his fondness for position, his discipline in research, to another arena, with such success as to completely overshadow in far-pervading reputation the rivals of his former profession. While his mind was absorbed in the triumph of his farming operations, and the grander plans for developing a home industry in mining and fertilizers, he had not altogether suppressed the desire to shine as a legislator. It seemed to us, from some casual words he dropped, that his vision looked beyond his agricultural schemes, and that he expected later on to make a victory in one domain the stepping stone to higher preferment in another. But he little dreamed, as we did not, that instead of pushing from one distinction to another during a long life, he then dwelt under the shadow of death. He stood before us, the picture of robust, manly health and beauty, seemingly predestined to length of days, and yet, in about eight weeks, he was sleeping in the grave. It is strange that so useful, so thorough, so excellent, so strong, so admirable a young man should pass away, while so many thousands who merely cumber the earth and scandalize it remain! We are again confronted with the cry of Lear over the body of Cordelia: "What! Shall a rat, a cat, a dog have life, and thou no breath at all!" The voice of Faith,

however, comes still and soft and low to answer that, in all likelihood, this noted Georgian had fulfilled his mission; that he had sowed the seed for an abundant harvest; that it might not have been well for him to linger upon earth, and that God, who gave and took him, "doeth all things well." He has left behind him, to be the pride of wife, children and country, a noble record haloed by an undying memory of youth. Other men will take up the work that he has so marvelously begun, and bring it to grand conclusions; but none of them will have, we suspect, a fame so singularly pure, and long will it be before Georgia forgets her worthy son.

[Milledgeville Correspondence Atlanta Constitution.]

DEATH OF HON. FARISH FURMAN.

Judge Farish Furman died at 8:30 o'clock last night of malarial fever, followed by congestion of the stomach. He came home from a business trip quite unwell, and the disease which caused his death soon made its appearance. He was in the hands of a devoted wife and able physician, Dr. W. H. Hall, and everything possible was done for him, but without success. His remains were interred in the cemetery here to day.

A SKETCH OF JUDGE FURMAN'S LIFE.

Judge Furman, while still a young man, not over thirty-seven at his death, was one of the best known men in the State. He was born in 1846, at Scottsboro, Baldwin county, Georgia, and was a son of Dr. John H. Furman, of South Carolina, and the grandson of the celebrated Dr. Richard Furman, a Baptist divine, after whom Furman University, in Greenville, S.C., was named. His mother was the daughter of Colonel Farish Carter, a prominent citizen of this State, and after whom Cartersville was named. She was also the niece of that distinguished and honored son of Georgia, Governor Charles J. McDonald.

Judge Furman was educated at Oglethorpe University, the citadel at Charleston, and finished his education by graduating at the South Carolina University in 1868. He commenced the study of law soon after he left college, and in 1870 was admitted to the bar in Macon, having studied law in the office of Nesbit & Jackson. He entered immediately upon the practice of his profession, and was appointed Judge of the County Court of Baldwin county in 1873, the duties of which office he discharged with great ability.

He was too young to be an active participant in the first years of the war. But his dauntless spirit and brave heart carried him, as young as he was, into the strife, and the last year of the war, he was a gallant private in Elliott's South Carolina brigade.

In politics he has always been a strong democrat. He was elected to the Senate in 1876, and has served one term in the Georgia Senate, and was a member of the constitutional convention.

He devoted much time to securing a call for the constitutional convention, with a hope of having the capital removed back to Milledgeville, which city he represented. At last the convention was called and the question of the capital was submitted to the people. Judge Furman canvassed the State in behalf of Milledgeville, and made speeches in perhaps fifty counties. At the close of his term in the Senate, Mr. Furman was a candidate for solicitor-general, but was defeated. He then devoted himself to farming, bringing to that occupation a fine education, practical and scientific knowledge, and a determination to give it the same care and intelligence that men usually give to the professions. The result was wonderful. He took sixty acres of land that produced eight bales of cotton the first year he cultivated it, and by intensive farming and the application of a compost that he called a perfect cotton food, he raised the yield steadily until it had reached 80 bales from 60 the acres. He expected to make from the same ground this year 100 bales. The details of his plan and the results achieved were printed in a series of letters in the *Constitution*, and created the greatest interest throughout the Cotton States. It is estimated that more than a million copies of the letters were printed in the State of Georgia, in one way or another. They have started a revolution in the system of cotton planting, and the results to which they are working can hardly be estimated. Mr. Furman dies with his experiments but half completed, and his death is a loss to the State, and in one sense irreparable.

[Planter's Journal, Vicksburg, Miss. Oct. 1883.]

DEATH OF FARISH C. FURMAN, THE GREAT GEORGIA FARMER—A MONUMENT TO HIS MEMORY PROPOSED.

It was a sad loss to the South when this great agriculturist died. He has probably done more for the cause of diversified scientific farming than any other man that has lived in the Cotton States. His lecture on "Intensive Farming," published in the *Planter's Journal* for November, 1882, went further, attracted more attention, and we believe did more than any single essay of the kind ever delivered.

His experiments in fertilization were peculiarly successful. His celebrated formula has saved to the country thousands of dollars that had been previously expended for more costly but no more efficient means of manuring. His example in cultivating a little farm of

sixty-five acres of worn-out land, so as to make a clear profit of over \$3,000 a year, has, to a greater or less extent, been followed by many who were half cultivating many times that area with even a less profit.

We had all along been advocates of small farms and high culture, and when Mr. Furman furnished such a striking practical example of the advantage of this plan, we at once felt that we had found a powerful ally and a valued friend. So highly did we appreciate him that our columns during the past year have been full of his praise. Among other things that we said about him was the following:

"The most famous man in the South to-day is farmer F. C. Furman, of Milledgeville, Ga. He has won his fame by the methods that Sir Isaac Newton and Lord Bacon won theirs—viz.: by natural discovery and inductive reasoning."

At the time that paragraph was written there were perhaps some who thought we were allowing our praises to become extravagant, but when the history of the new South shall have been written we venture the assertion that its pages will bear us out to this extent at all events, that if he were not the most famous man of his day, he ought to have been.

It is men like Furman that the South more sorely needs than those of any other type. Great lawyers are useful, great preachers are useful, great doctors are more useful, but great farmers are most useful. This is essentially a country of farmers, and yet their methods are in a state of worse backwardness than those of any other craft or calling. Farish C. Furman was not only a great farmer, but a great teacher of farming. He was more a discoverer; hence his commanding usefulness.

And now that he is no longer among the living and the working, let us testify our appreciation of his life and his work by erecting a monument to mark his resting place. Let it be a tribute from the farmers of the Cotton States to the noblest farmer of them all. Let it show to the world that the man who "acts well his part" as a farmer shall have high honor paid to his memory by his brother farmers. Let a subscription list at once be prepared and circulated in all our States. The *Planters' Journal* will be one of a hundred to subscribe the first \$5,000.

[Atlanta Evening Journal.]

DEATH OF HON. F. C. FURMAN.

The many friends of this distinguished young Georgian in this city, and throughout the State, will receive the announcement of his death with deep sorrow. It was generally known that he has been prostrated with fever for a few weeks past, but it was hoped that he would recover up to yesterday.

The death of this promising young

man is peculiarly felt by a people whose eyes had so suddenly been turned upon him by his successful farming enterprises, and his probable solution of the problem that is puzzling our people. The remarkable feature in his life was the abandonment of a lucrative law practice and a most promising field of political preferment to devote his talent and energy to the practical demonstration of Georgia's resources in the agricultural line. His name was already familiar all over the South, and he was doing much to encourage the tillers of the soil, and bring that noble calling to a proper estimation in the minds of the Southern people.

The death of Mr. Furman is a public calamity, and will be mourned all over the State. But the shadow grows darker when we think of the void created in his happy home, at Scottsboro, where a devoted wife and two bright little ones are left desolate. He was a tender, thoughtful husband and father, a true-hearted warm friend, a patriotic, public spirited citizen. Well may Georgia mourn when death claims such of her sons as Farish C. Furman.

Charleston News and Courier.

DEATH OF MR: F. C. FURMAN.

Columbia special to the Sunday News, dated September 15th:

"Farish C. Furman died at his residence, near Milledgeville, Ga., last night, after three weeks' illness. He was the son of Dr. John H. Furman, of Sumter county, in this State, his mother being a daughter of Judge Farish Carter, of Georgia. He was born thirty-seven years ago. Farish Carter Furman attended the Citadel Academy during the war, and subsequently graduated with distinction at the South Carolina University. In 1869 he married a daughter of Prof. Jos. LeConte, of Columbia, settling in Milledgeville, Ga. He practiced law, was county judge and was sent to the State Senate in 1876. He took an active part in the Georgia capital campaign, but afterwards abandoned politics and devoted himself to the law and to farming. The results of his experiments in cotton culture have been published all over the United States and in several parts of Europe. He contributed to leading agricultural journals and made many public addresses. At the time of his death he was engaged in raising a company for the manufacture of sulphur from Georgia pyrites, and also of a special fertilizer or perfect cotton plant food. He had been quite successful in Alabama and Georgia, and had entered South Carolina on this mission, but on reaching Columbia he heard that the caterpillars had appeared in his crop, and hastened home apparently in the most robust health and full of energy

and enthusiasm, but on the next day he was taken ill with fever, from which disease he died last night.

"Young, pure-minded, highly gifted, physically and mentally, full of energy and enthusiasm, he gave promise of the greatest usefulness in the field where the South most needs expansion. So often it is that the professions steal the brightest intellects of the South from agriculture, that the death of Farish Furman is doubly to be deplored. Scientific agriculture has lost one of its noblest exemplars."

[From the Atlanta Constitution, Nov. 24, '83.]

The cotton convention in Vicksburg yesterday passed a resolution of respect to the memory of the late Hon. Farish Furman, the greatest farmer the South ever produced.

VICKSBURG, November 23.—The second day's session of the National Cotton Planters' Association of America was largely attended.

THE MEMORY OF FARISH FURMAN.

A resolution of respect was passed to the memory of the late Farish Furman, of Georgia, the most successful and famous farmer in the South, and a member of this association, who made ninety bales of cotton on land previously producing eight by fertilizing and improved methods of culture.

RESOLUTIONS ON THE DEATH OF HON. F. C. FURMAN.

Passed by the board of directors of the "Southern Mining and Farm Improvement Company."

WHEREAS, Death has come among us and taken away in the prime of his life and in the midst of his usefulness our President, the Hon. Farish C. Furman, the foremost farmer, the skilled scientific agriculturist, be it

Resolved, 1st. That in his death the State loses one of her most useful citizens, the cadre of agriculture its most eloquent advocate, and the country one of its brightest intellects.

Resolved, 2d. That we, his associates in the great work he was doing, deeply deplore his untimely taking off, and hereby express our affection for him and our admiration for the splendid qualities of his head and heart. He was thoroughly equipped in mental training, and his life was full of hope and promise. We loved him and we mourn his loss.

Resolved, 3d. That this company have published a sketch of his life and work for distribution among his friends and the stockholders of this company.

Resolved, 4th. That in consideration of his arduous labors throughout this long hot summer, traveling and talking almost day and night to build up this company, that we in honor of his memory have determined to change the name of this organization to the "Fur-

man Farm Improvement Company," and immediate steps will be taken to comply with legal requirements.

Resolved 5th. That we tender our heartfelt sympathies to his bereaved family in their great affliction, and that a copy of these resolutions be forwarded to them.

Resolved, 6th. That these resolutions be published in the *Atlanta Constitution*.

E. W. MARSH,

N. A. PRATT,

W. C. GRASTY, JR.,

Jos. F. ALLISON,

HUGH H. COLQUITT,

Board of Directors.

[Extract from an editorial in "L'Abielle" (New Orleans) of March 31, 1883, entitled *Science and Agriculture*.—Mr. Furman. * * *]

It is thus, that in a short time this self-made agriculturist has reached that safe and certain competency, which knows no reverse, and which laughs at the freaks of fortune.

Would that every agriculturist might have constantly before his eyes the example of this intelligent mind, this noble character, this true model of the American citizen, this survivor of those grand generations which founded the Union, and have remained its purest glory.

FARISH FURMAN.

[Providence (R. I.) Journal.]

The Augusta, Ga., *Chronicle* publishes an excellent, because appreciative and plainly hearty, obituary notice of Judge Farish Furman, who had shown what energy and skill could do on and for the soil of Georgia.

While commenting upon the character and abilities of Judge Furman, in their various phases, it is as a farmer that he is held up to view as the noble exemplar of the younger generation of Southern men. This is significant. It speaks of a new spirit, a new ambition, a new reward; and the *Chronicle* is entitled to respect for the persistent and able manner in which it has, despite the sneers of some of its home contemporaries, held to the important duty of encouraging agriculture. This is the foundation of prosperity everywhere. If it is in manufacturing England, what is it not in Georgia.

[Columbia Register, Sept. 18th, 1883.]

DEATH OF THE HON. FARISH CARTER FURMAN.

This brilliant young Georgian died at his residence near Milledgeville, Ga., on

Friday night, of fever. Three weeks ago the deceased was in our city, where he impressed all who met him with his manly vigor and the generous enthusiasm of his hopeful and ardent estimate of the great future awaiting the section of his birth and his unfeigned love.

Mr. Furman was a member of the old and honorable Furman family of this State. He was the son of Dr. John H. Furman, of Sumter. His mother was a daughter of Judge Farish Carter, who was a leading man and one of the wealthiest citizens of Georgia.

The deceased was born near Milledgeville in 1846. During the war he was a cadet of the South Carolina Military Academy, and subsequently pursued his studies in the South Carolina University with much distinction.

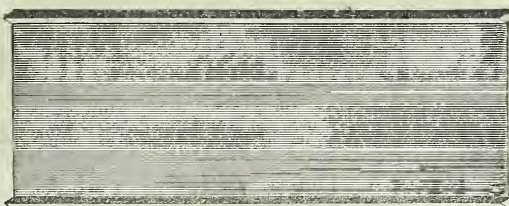
In 1869 Mr. Furman married a daughter of Prof. Joseph LeConte. He leaves behind him this wife and two daughters. Locating near Milledgeville, he entered on the practice of law, serving also as county Judge. He was elected as a State Senator in 1876, and canvassed the State for the removal of the capitol to Milledgeville. He greatly distinguished himself in this canvass, though he failed to achieve success in a cause possibly a foregone conclusion from the beninning.

Mr. Furman subsequently devoted himself to intensive farming. Selecting sixty acres of old field pine land near Milledgeville, with improved methods and manures, he raised the production of this farm from an eighth of a bale to over a bale to the acre. The great success of his plan of cultivation and fertilization became a matter of repute in all Georgia and Alabama, so that thousands of Georgia farmers adopted his formula this season. When a great chieftain or statesman dies, we pay his memory common tributes of praise and rear costly monuments to commemorate his fame. How much more is due to him who blazes the pathway of that agricultural progress which shall give us a new earth under the same skies. This Farish Furman not only had begun to do, but had already done, with such splendid success that Georgia planters will not fail to mark the spot that contains his mortal remains as that where sleeps one of Georgia's greatest sons, who devoted his distinguished talents in the day of strong young manhood to the exaltation of that calling which, above all others, carries in its palms both peace and plenty. A great light has gone out in the land, and we of Carolina deplore him as a noble scion of a race of good and true men of our own soil.

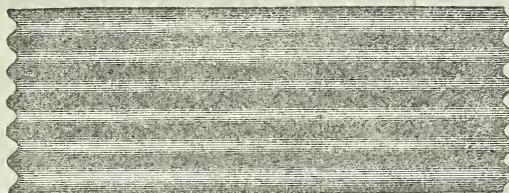
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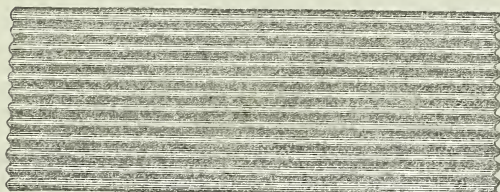
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The interests of humanity seem to demand the publication of the following facts: Two months ago my attention was called to the case of a poor woman who was said to be afflicted with a cancer. I found her with an ulcer on her shoulder at least five inches in circumference, angry, painful, and giving the patient no rest, day or night, for six months. I obtained a supply of Swift's Specific, which I persuaded her to try. She has taken five bottles, the result of which is that the ulcer is entirely healed up, nothing remaining but a small scab, not larger than one's finger nail, and her general health is better than for five years past. She seems to be perfectly cured.

An old man of sixty-seven years has been subject to scrofulous sores for five years. He had one on his cheek as large as a silver dollar, swollen, raw and constantly exuding very offensive matter. Another on his foot of the same character, and several on his hands, all of about two and a half years' standing. His general health was poor, and he could scarcely get about at all. He has taken two bottles of Swift's Specific. The sores are all well, leaving scarcely a vestige of their former existence, and his general health better than it has been in ten years. I consider its effects wonderful—almost miraculous.

REV. JESSE H. CAMPBELL.

Columbus, Ga., October 17, 1882.

We have had a great improvement in the health of our children by the use of Swift's specific. We had among the children some who had scrofula—notably one case in which it was unmistakably hereditary. We got some of Swift's Specific and gave it to this case, and in a short while it was cured sound and well. It was as bad a case, I think, as I ever saw, and had been under excellent physicians with no permanent benefit. We have been giving it to all the children as a health tonic. We have four children, and one seamstress who, for years, have suffered intensely every spring with erysipelas, and though they had been taking Swift's Specific only in small doses as a health tonic, they all, without exception passed through this spring with out a touch of the complaint.

A young lady of the institution, who has been with us for years, has been troubled with a most aggravated rash ever since she was a child. She tried all the known remedies that are prescribed for it with no benefit; but she has been cured by taking Swift's Specific, and has had no return of the trouble.

It is such an excellent tonic, and keeps the blood so pure, that the system is less liable to contract disease. All of the teachers and children, who are old enough to know, agree with me in believing it is the greatest medicine known. My faith in it is unbounded and I and my assistants take great pleasure in recommending it to every one. I can at all times be found at the Home, and will take pleasure in seeing or corresponding with one who is interested in the remedy.

REV. L. B. PAINE, Orphans' Home, Macon, Ga.

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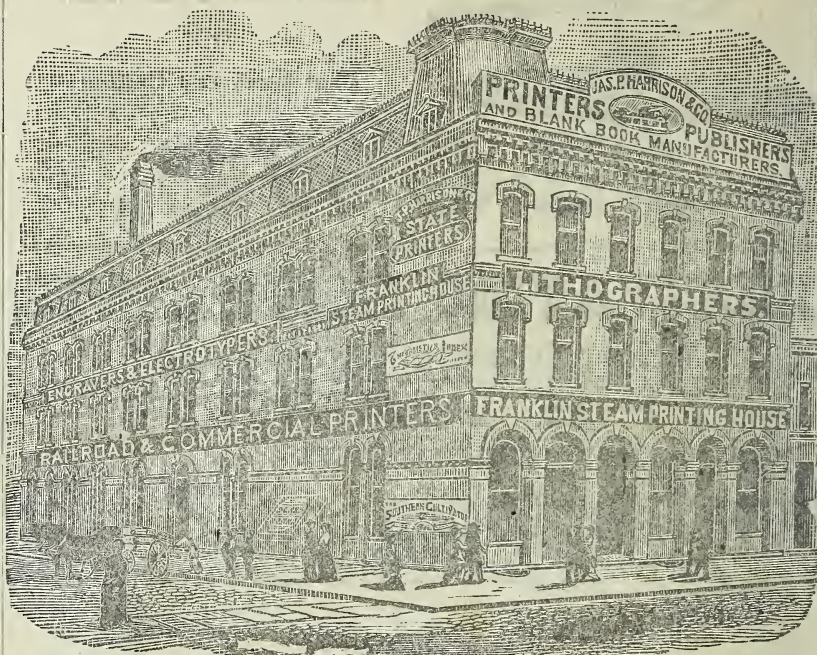
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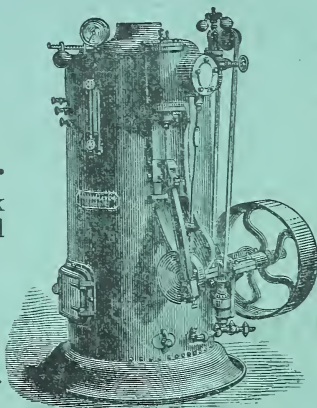
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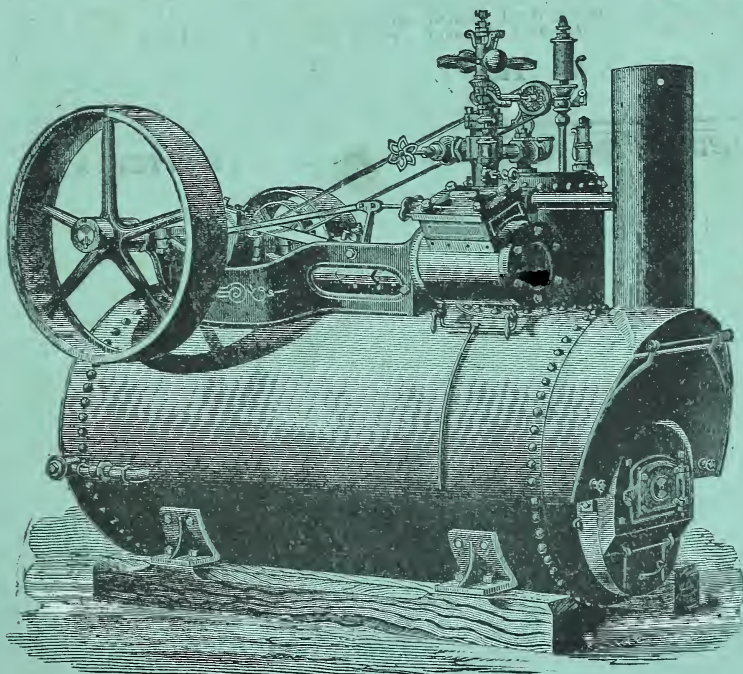
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